

**Notice of Allowability**

Application No.

10/693,225

Examiner

Shanto M Z Abedin

Applicant(s)

SHAO, TONG

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/09/2007.
2. ☒ The allowed claim(s) is/are 20-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☒ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material  
NASSER MOAZZAMI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***DETAILED ACTION***

1. This office action is in response to the communication filed on 11/09/2007.
2. Claims 1-19 have been cancelled by the applicant.
3. Claims 20-22 are pending in the application.
4. Claims 20-22 have been allowed.

***Response to Amendments***

5. Drawings submitted on 11/09/2007 are accepted, and the previous objections to the drawings and claims are withdrawn.

***Examiner's Amendments***

6. An examiner's amendment to the record appears below. Should the changes and/ or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
7. Authorization for this examiner's amendment was given in a telephone interview with the applicant's representative Mr. Raymond Y Chan on 11/29/2007. Claim 22 has been amended as follows:

**Claim 22.** (Currently Amended) a method of safely and quickly switching between an internal operating system and an external operating system for a computing system having a CPU, an input unit, a first status defined by states of all variable registers thereof when said

computing system is only connected to said internal operating system , a second status defined by states of said all variable registers when said computing system is only connected to said external operating system , a switching unit, and, a switch program, wherein said method comprises following steps:

(1) ~~input~~ inputting a request of switching via said input unit when said computing system is in one of said ~~two~~ first and second statuses;

(2) after receiving said request of switching, running said CPU ~~runs~~ said switch program; and

(3) backing up said switch program ~~backs-up~~ a current status, control said switching unit to interrupt all serving programs and ~~loads~~ loading the other status other than said current status to the computing system, wherein said switching unit has a trigger that is able to generate a non-maskable interrupt to said CPU after said switching unit receives a command of switching from said CPU responding to said request of switching, wherein said step (3) is that said supervising unit monitors an execution process of said switch program running in said CPU, and either (3a) allows said switch program to back up a current status, control said switching unit to interrupt all serving programs and loads the other status other than said current status to said computing system, and finally control said switching unit to reset said first trigger if said supervising unit confirms that said process has always been in a script of said switch program, or (3b) prohibit said switch control unit from any action if said supervising unit fails to confirm.

*Allowable Subject Matter*

8. Claims 20-22 are allowed over the prior arts of record.

*Examiner's Reasons for Allowance*

9. The following is an examiner's statement of reasons for allowances.

Independent claims 20 and 22 are patentable over the closest prior arts of record because individually or in combination, cited prior arts do not anticipate nor fairly and reasonably teach: a method/ system wherein switching unit has a trigger that is able to generate a non-maskable interrupt to said CPU; and wherein a switch program in switching unit has backups of both said statuses, and which after said CPU receives said non-maskable interrupt, is able to backup a current status; and controlling a switch unit to reset said trigger; and wherein a supervising unit allow said switch program to proceed if said supervising unit confirms said process has always been in a script of said switch program, or prohibit said switch control unit from any action if said supervising unit fails to confirm.

Independent claim 21 is patentable over the closest prior arts of record because individually or in combination, cited prior arts do not anticipate nor fairly and reasonably teach: a method/ system wherein switching unit has a trigger that is able to generate a non-maskable interrupt to said CPU; and wherein a switch program in switching unit has backups of both said statuses, and which after said CPU receives said non-maskable interrupt, is able to backup a current status; and controlling a switch unit to reset said trigger; and wherein

said switch program has an ID verification unit thereof used to confirm a validity of a user, and making said switching unit either to proceed or stop respectively when identification is passed or failed.

Newly cited prior art reference Ohno et al discloses a system/ method for interrupt controlling in similar environment, however, it fails to disclose expressly switching unit has a trigger that is able to generate a non-maskable interrupt, and backing up statuses, and resetting said triggers. Furthermore, although Ohno et al also discloses a supervisory control program, it fails to disclose supervising unit checking whether process has been in a script of said switch program; or wherein a switch program has an ID verification unit thereof used to confirm a validity of a user, and making said switching unit either to proceed or stop respectively when identification is passed or failed.

### ***Conclusion***

10. Claims 20-22 are patentable.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays should be clearly labeled "Comments on Statement of Reasons for Allowance."

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanto M Z Abedin whose telephone number is 571-272-3551. The examiner can normally be reached on M-F from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami

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Nasser, can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shanto M Z Abedin

Examiner, A.U. 2136

NASSER MOAZZAMI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

  
1/2/08